10/581213 AP3 Rec'd PCT/PTO 30 MAY 2006

5185.ST25.txt SEQUENCE LISTING

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Glu Ser Thr Ala Gly Ile Thr Thr Thr Ser Pro Arg Thr Pro Pro 660 665 670 Pro Leu Thr Val Gln Asp Pro Leu Cys Pro Ala Val Cys Pro Leu Glu 675 680 685 Glu Leu Ser Pro Asp Ser Ile Asp Ala His Thr Phe Asp Phe Glu Thr 690 695 700 Ile Pro His Pro Asn Ile Glu Gln Thr Ile His Gln Val Ser Leu Asp 705 710 715 720 Leu Asp Ser Leu Ala Glu Ser Pro Glu Ser Asp Phe Met Ser Ala Val 725 730 735 Asn Glu Phe Val Ile Glu Glu Asn Leu Ser Ser Pro Asn Pro Ile Ser 740 745 750 Asp Pro Gln Ser Pro Glu Met Met Val Glu Ser Leu Tyr Ser Ser Val 755 760 765 Ile Asn Ala Ile Asp Ser Arg Arg Met Gln Asp Thr Asn Val Cys Gly 770 780 Lys Glu Asp Phe Gly Asp His Thr Ser Leu Asn Val Gln Leu Glu Arg 785 790 795 800 Cys Arg Val Val Ala Gln Asp Ser His Phe Ser Ile Gln Thr Ile Lys Glu Asp Leu Cys His Phe Arg Thr Phe Val Gln Lys Glu Gln Cys Asp 820 825 830 Phe Ser Asn Ser Leu Lys Cys Thr Ala Val Glu Ile Arg Asn Ile Ile 835 840 845 Glu Lys Val Lys Cys Ser Leu Glu Ile Thr Leu Lys Glu Lys His Gln 850 855 860 Lys Glu Leu Leu Ser Leu Lys Asn Glu Tyr Glu Gly Lys Leu Asp Gly 865 870 875 880 Leu Ile Lys Glu Thr Glu Glu Asn Glu Asn Lys Ile Lys Lys Leu Lys 885 890 895 Gly Glu Leu Val Cys Leu Glu Glu Val Leu Gln Asn Lys Asp Asn Glu Page 35

Phe Ala Leu Val Lys His Glu Lys Glu Ala Val Ile Cys Leu Gln Asn 915 920 925

Glu Lys Asp Gln Lys Leu Leu Glu Met Glu Asn Ile Met His Ser Gln 930 935 940

Asn Cys Glu Ile Lys Glu Leu Lys Gln Ser Arg Glu Ile Val Leu Glu 945 950 955 960

Asp Leu Lys Lys Leu His Val Glu Asn Asp Glu Lys Leu Gln Leu Leu 965 970 975

Arg Ala Glu Leu Gln Ser Leu Glu Gln Ser His Leu Lys Glu Leu Glu 980 985 990

Asp Thr Leu Gln Val Arg His Ile Gln Glu Phe Glu Lys Val Met Thr $995 \hspace{1.5cm} 1000 \hspace{1.5cm} 1005$

Asp His Arg Val Ser Leu Glu Glu Leu Lys Lys Glu Asn Gln Gln 1010 1020

Ile Ile Asn Gln Ile Gln Glu Ser His Ala Glu Ile Ile Gln Glu 1025 1030 1035

Lys Glu Lys Gln Leu Gln Glu Leu Lys Leu Lys Val Ser Asp Leu 1040 1045 1050

Ser Asp Thr Arg Cys Lys Leu Glu Val Glu Leu Ala Leu Lys Glu 1055 1060 1065

Ala Glu Thr Asp Glu Ile Lys Ile Leu Leu Glu Glu Ser Arg Ala 1070 1075 1080

Gln Gln Lys Glu Thr Leu Lys Ser Leu Leu Glu Gln Glu Thr Glu 1085 1090 1095

Asn Leu Arg Thr Glu Ile Ser Lys Leu Asn Gln Lys Ile Gln Asp 1100 1105 1110

Asn Asn Glu Asn Tyr Gln Val Gly Leu Ala Glu Leu Arg Thr Leu
1115 1120 1125

Met Thr Ile Glu Lys Asp Gln Cys Ile Ser Glu Leu Ile Ser Arg 1130 1135 1140

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Lys Leu Glu Glu Glu Val Ser Lys Leu Arg Ser Ser Phe Val 1390 1395 Pro Ser Pro Tyr Val Ala Thr Ala Pro Glu Leu Tyr Gly Ala Cys 1400 1410 Ala Pro Glu Leu Pro Gly Glu Ser Asp Arg Ser Ala Val Glu Thr 1415 1420 1425 Ala Asp Glu Gly Arg Val Asp Ser Ala Met Glu Thr Ser Met Met 1430 1440Ser Val Gln Glu Asn Ile His Met Leu Ser Glu Glu Lys Gln Arg Ile Met Leu Leu Glu Arg Thr Leu Gln Leu Lys Glu Glu Glu Asn 1460 Lys Arg Leu Asn Gln Arg Leu Met Ser Gln Ser Met Ser Ser Val 1475 1480 1485 1480 1485 Ser Ser Arg His Ser Glu Lys Ile Ala Ile Arg Asp Phe Gln Val 1490 Gly Asp Leu Val Leu Ile Ile Leu Asp Glu Arg His Asp Asn Tyr 1505 1510 1515 Val Leu Phe Thr Val Ser Pro Thr Leu Tyr Phe Leu His Ser Glu 1520 1530 Ser Leu Pro Ala Leu Asp Leu Lys Pro Gly Glu Gly Ala Ser Gly 1535 1540 1545 Ala Ser Arg Arg Pro Trp Val Leu Gly Lys Val Met Glu Lys Glu Tyr Cys Gln Ala Lys Lys Ala Gln Asn Arg Phe Lys Val Pro Leu 1565 1570 1575 Gly Thr Lys Phe Tyr Arg Val Lys Ala Val Ser Trp Asn Lys Lys 1585

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<213> Homo sapiens

<400> 22

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Asp Cys Asp Ala Leu Met Ala Gly Cys Ile Gln Glu Ala Arg Glu Arg 40 45

Trp Asn Phe Asp Phe Val Thr Glu Thr Pro Leu Glu Gly Asp Phe Ala 50 55 60

Trp Glu Arg Val Arg Gly Leu Gly Leu Pro Lys Leu Tyr Leu Pro Thr 65 70 75 80

Gly Pro Arg Arg Gly Arg Asp Glu Leu Gly Gly Gly Arg Arg Pro Gly 85 90 95

Thr Ser Pro Ala Leu Leu Gln Gly Thr Ala Glu Glu Asp His Val Asp 100 105 110

Leu Ser Leu Ser Cys Thr Leu Val Pro Arg Ser Gly Glu Gln Ala Glu 115 120 125

Gly Ser Pro Gly Gly Pro Gly Asp Ser Gln Gly Arg Lys Arg Arg Gln 130 140

Thr Ser Met Thr Asp Phe Tyr His Ser Lys Arg Arg Leu Ile Phe Ser 145 150 155 160

Lys Arg Lys Pro

<210> 23

<211> 313

<212> PRT

<213> Homo sapiens

<400> 23

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Ala Gln Glu Arg Asp Ala Glu Pro Arg Pro Pro His Gly Glu Leu Gln 20 25 30

Tyr Leu Gly Gln Ile Gln His Ile Leu Arg Cys Gly Val Arg Lys Asp 35 40 45 Asp Arg Thr Gly Thr Gly Thr Leu Ser Val Phe Gly Met Gln Ala Arg 50 60 Tyr Ser Leu Arg Asp Glu Phe Pro Leu Leu Thr Thr Lys Arg Val Phe 65 70 75 80 Trp Lys Gly Val Leu Glu Glu Leu Leu Trp Phe Ile Lys Gly Ser Thr 85 90 95 Asn Ala Lys Glu Leu Ser Ser Lys Gly Val Lys Ile Trp Asp Ala Asn 100 105 110 Gly Ser Arg Asp Phe Leu Asp Ser Leu Gly Phe Ser Thr Arg Glu Glu 115 120 125 Gly Asp Leu Gly Pro Val Tyr Gly Phe Gln Trp Arg His Phe Gly Ala 130 135 140 Glu Tyr Arg Asp Met Glu Ser Asp Tyr Ser Gly Gln Gly Val Asp Gln 145 150 155 160 Leu Gln Arg Val Ile Asp Thr Ile Lys Thr Asn Pro Asp Asp Arg Arg 165 170 175 Ile Ile Met Cys Ala Trp Asn Pro Arg Asp Leu Pro Leu Met Ala Leu 180 185 190 Pro Pro Cys His Ala Leu Cys Gln Phe Tyr Val Val Asn Ser Glu Leu 195 200 205 Ser Cys Gln Leu Tyr Gln Arg Ser Gly Asp Met Gly Leu Gly Val Pro 210 220 Phe Asn Ile Ala Ser Tyr Ala Leu Leu Thr Tyr Met Ile Ala His Ile 225 230 235 240 Thr Gly Leu Lys Pro Gly Asp Phe Ile His Thr Leu Gly Asp Ala His 245 250 255 Ile Tyr Leu Asn His Ile Glu Pro Leu Lys Ile Gln Leu Gln Arg Glu 260 265 270 Pro Arg Pro Phe Pro Lys Leu Arg Ile Leu Arg Lys Val Glu Lys Ile 275 280 285 Page 40

Asp Asp Phe Lys Ala Glu Asp Phe Gln Ile Glu Gly Tyr Asn Pro His 290 295 300

Pro Thr Ile Lys Met Glu Met Ala Val 305 310

<210> 24

<211> 179

<212> PRT

<213> Homo sapiens

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Arg Lys Gly Ala Glu Pro Ser Gly Gly Ala Ala Arg Gly Pro Val Gly 20 25 30

Lys Arg Leu Gln Gln Glu Leu Met Thr Leu Met Met Ser Gly Asp Lys 35 40 45

Gly Ile Ser Ala Phe Pro Glu Ser Asp Asn Leu Phe Lys Trp Val Gly 50 60

Thr Ile His Gly Ala Ala Gly Thr Val Tyr Glu Asp Leu Arg Tyr Lys 70 75 80

Leu Ser Leu Glu Phe Pro Ser Gly Tyr Pro Tyr Asn Ala Pro Thr Val 85 90 95

Lys Phe Leu Thr Pro Cys Tyr His Pro Asn Val Asp Thr Gln Gly Asn 100 105 110

Ile Cys Leu Asp Ile Leu Lys Glu Lys Trp Ser Ala Leu Tyr Asp Val 115 120 125

Arg Thr Ile Leu Leu Ser Ile Gln Ser Leu Leu Gly Glu Pro Asn Ile 130 140

Asp Ser Pro Leu Asn Thr His Ala Ala Glu Leu Trp Lys Asn Pro Thr 145 150 155 160

Ala Phe Lys Lys Tyr Leu Gln Glu Thr Tyr Ser Lys Gln Val Thr Ser 165 170 175

Gln Glu Pro

<210> 25

<211> 736 <212> PRT

<213> Homo sapiens

<400> 25

Met Lys Lys Ser Arg Ser Val Met Thr Val Met Ala Asp Asp Asn Val $1 \hspace{1cm} 10 \hspace{1cm} 15$

Lys Asp Tyr Phe Glu Cys Ser Leu Ser Lys Ser Tyr Ser Ser Ser Ser Ser 20 25 30

Asn Thr Leu Gly Ile Asp Leu Trp Arg Gly Arg Arg Cys Cys Ser Gly 40 45

Asn Leu Gln Leu Pro Pro Leu Ser Gln Arg Gln Ser Glu Arg Ala Arg 50 55 60

Thr Pro Glu Gly Asp Gly Ile Ser Arg Pro Thr Thr Leu Pro Leu Thr 65 70 75 80

Thr Leu Pro Ser Ile Ala Ile Thr Thr Val Ser Gln Glu Cys Phe Asp 85 90 95

Val Glu Asn Gly Pro Ser Pro Gly Arg Ser Pro Leu Asp Pro Gln Ala 100 105 110

Ser Ser Ser Ala Gly Leu Val Leu His Ala Thr Phe Pro Gly His Ser 115 120 125

Gln Arg Arg Glu Ser Phe Leu Tyr Arg Ser Asp Ser Asp Tyr Asp Leu 130 135 140

Ser Pro Lys Ala Met Ser Arg Asn Ser Ser Leu Pro Ser Glu Gln His 145 150 155 160

Gly Asp Asp Leu Ile Val Thr Pro Phe Ala Gln Val Leu Ala Ser Leu 165 170 175

Arg Ser Val Arg Asn Asn Phe Thr Ile Leu Thr Asn Leu His Gly Thr 180 185 190

Ser Asn Lys Arg Ser Pro Ala Ala Ser Gln Pro Pro Val Ser Arg Val 195 200 205

Asn Pro Gln Glu Glu Ser Tyr Gln Lys Leu Ala Met Glu Thr Leu Glu 210 215 220 Page 42

Glu Leu Asp Trp Cys Leu Asp Gln Leu Glu Thr Ile Gln Thr Tyr Arg 225 230 235 240 Ser Val Ser Glu Met Ala Ser Asn Lys Phe Lys Arg Met Leu Asn Arg Glu Leu Thr His Leu Ser Glu Met Ser Arg Ser Gly Asn Gln Val Ser 260 265 270 Glu Tyr Ile Ser Asn Thr Phe Leu Asp Lys Gln Asn Asp Val Glu Ile 275 280 285 Pro Ser Pro Thr Gln Lys Asp Arg Glu Lys Lys Lys Gln Gln Leu 290 295 300 Met Thr Gln Ile Ser Gly Val Lys Lys Leu Met His Ser Ser Ser Leu 305 310 315 320 Asn Asn Thr Ser Ile Ser Arg Phe Gly Val Asn Thr Glu Asn Glu Asp 325 330 335 His Leu Ala Lys Glu Leu Glu Asp Leu Asn Lys Trp Gly Leu Asn Ile 340 345 350 Phe Asn Val Ala Gly Tyr Ser His Asn Arg Pro Leu Thr Cys Ile Met 355 360 365 Tyr Ala Ile Phe Gln Glu Arg Asp Leu Leu Lys Thr Phe Arg Ile Ser 370 380 Ser Asp Thr Phe Ile Thr Tyr Met Met Thr Leu Glu Asp His Tyr His 385 390 395 400 Ser Asp Val Ala Tyr His Asn Ser Leu His Ala Ala Asp Val Ala Gln Ser Thr His Val Leu Leu Ser Thr Pro Ala Leu Asp Ala Val Phe Thr 420 Asp Leu Glu Ile Leu Ala Ala Ile Phe Ala Ala Ile His Asp Val Asp His Pro Gly Val Ser Asm Gln Phe Leu Ile Asm Thr Asm Ser Glu 455 Leu Ala Leu Met Tyr Asn Asp Glu Ser Val Leu Glu Asn His His Leu Page 43

470

Ala Val Gly Phe Lys Leu Leu Gln Glu Glu His Cys Asp Ile Phe Met 485 490 495 Asn Leu Thr Lys Lys Gln Arg Gln Thr Leu Arg Lys Met Val Ile Asp 500 510 Met Val Leu Ala Thr Asp Met Ser Lys His Met Ser Leu Leu Ala Asp 515 520 525 Leu Lys Thr Met Val Glu Thr Lys Lys Val Thr Ser Ser Gly Val Leu 530 540 Leu Leu Asp Asn Tyr Thr Asp Arg Ile Gln Val Leu Arg Asn Met Val 545 550 560 His Cys Ala Asp Leu Ser Asn Pro Thr Lys Ser Leu Glu Leu Tyr Arg 565 570 575 Gln Trp Thr Asp Arg Ile Met Glu Glu Phe Phe Gln Gln Gly Asp Lys 580 585 590 Glu Arg Glu Arg Gly Met Glu Ile Ser Pro Met Cys Asp Lys His Thr 595 600 605 Ala Ser Val Glu Lys Ser Gln Val Gly Phe Ile Asp Tyr Ile Val His 610 620 Pro Leu Trp Glu Thr Trp Ala Asp Leu Val Gln Pro Asp Ala Gln Asp 625 635 640 Ile Leu Asp Thr Leu Glu Asp Asn Arg Asn Trp Tyr Gln Ser Met Ile Pro Gln Ser Pro Ser Pro Pro Leu Asp Glu Gln Asn Arg Asp Cys Gln 660 670 Gly Leu Met Glu Lys Phe Gln Phe Glu Leu Thr Leu Asp Glu Glu Asp 675 680 685 Ser Glu Gly Pro Glu Lys Glu Gly Glu Gly His Ser Tyr Phe Ser Ser 690 700

Thr Lys Thr Leu Cys Val Ile Asp Pro Glu Asn Arg Asp Ser Leu Gly 705 710 715 720

Glu Thr Asp Ile Asp Ile Ala Thr Glu Asp Lys Ser Pro Val Asp Thr 725 730 735

<210> 26

<211> 97 <212> PRT

<213> Homo sapiens

<400> 26

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His Lys Tyr Ser Cys Gln Glu Gly Asp Lys Phe Lys Leu Ser Lys Gly 20 25 30

Glu Met Lys Glu Leu Leu His Lys Glu Leu Pro Ser Phe Val Gly Glu 35 40 45

Lys Val Asp Glu Glu Gly Leu Lys Lys Leu Met Gly Ser Leu Asp Glu 50 55 60

Asn Ser Asp Gln Gln Val Asp Phe Gln Glu Tyr Ala Val Phe Leu Ala 65 70 75 80

Leu Ile Thr Val Met Cys Asn Asp Phe Phe Gln Gly Cys Pro Asp Arg 85 90 95

Pro

<210> 27

<211> 271

<212> PRT

<213> Homo sapiens

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Gln Lys Phe His Leu Val Pro Ser Ile Asn Thr Met Ser Gly Ser Gln 35 40 45

Glu Leu Gln Trp Met Val Gln Pro His Phe Leu Gly Pro Ser Ser Tyr 50 60

Pro Arg Pro Leu Thr Tyr Pro Gln Tyr Ser Pro Pro Gln Pro Arg Pro Page 45 Gly Val Ile Arg Ala Leu Gly Pro Pro Pro Gly Val Arg Arg Pro 85 90 95

Cys Glu Gln Ile Ser Pro Glu Glu Glu Arg Arg Arg Val Arg Arg 100 105 110

Glu Arg Asn Lys Leu Ala Ala Ala Lys Cys Arg Asn Arg Arg Lys Glu 115 120 125

Leu Thr Asp Phe Leu Gln Ala Glu Thr Asp Lys Leu Glu Asp Glu Lys 130 135 140

Ser Gly Leu Gln Arg Glu Ile Glu Glu Leu Gln Lys Gln Lys Glu Arg 145 150 155 160

Leu Glu Leu Val Leu Glu Ala His Arg Pro Ile Cys Lys Ile Pro Glu 165 170 175

Gly Ala Lys Glu Gly Asp Thr Gly Ser Thr Ser Gly Thr Ser Ser Pro 180 185 190

Pro Ala Pro Cys Arg Pro Val Pro Cys Ile Ser Leu Ser Pro Gly Pro 195 200 205

Val Leu Glu Pro Glu Ala Leu His Thr Pro Thr Leu Met Thr Thr Pro 210 215 220

Ser Leu Thr Pro Phe Thr Pro Ser Leu Val Phe Thr Tyr Pro Ser Thr 225 235 240

Pro Glu Pro Cys Ala Ser Ala His Arg Lys Ser Ser Ser Ser Gly 245 250 255

Asp Pro Ser Ser Asp Pro Leu Gly Ser Pro Thr Leu Leu Ala Leu 260 265 270

<210> 28

<211> 410

<212> PRT

<213> Homo sapiens

<400> 28

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Thr Gly Ala Thr Phe Pro Glu Glu Ala Ile Ala Asp Leu Ser Val Asn Page 46

Met Tyr Asn Arg Leu Arg Ala Thr Gly Glu Asp Glu Asn Ile Leu Phe 35 40 45 Ser Pro Leu Ser Ile Ala Leu Ala Met Gly Met Met Glu Leu Gly Ala 50 55 60 Gln Gly Ser Thr Gln Lys Glu Ile Arg His Ser Met Gly Tyr Asp Ser 65 70 75 80 Leu Lys Asn Gly Glu Glu Phe Ser Phe Leu Lys Glu Phe Ser Asn Met 85 90 95 Val Thr Ala Lys Glu Ser Gln Tyr Val Met Lys Ile Ala Asn Ser Leu 100 105 110 Phe Val Gln Asn Gly Phe His Val Asn Glu Glu Phe Leu Gln Met Met 115 120 125 Lys Lys Tyr Phe Asn Ala Ala Val Asn His Val Asp Phe Ser Gln Asn 130 140 Val Ala Val Ala Asn Tyr Ile Asn Lys Trp Val Glu Asn Asn Thr Asn 145 150 155 160 Asn Leu Val Lys Asp Leu Val Ser Pro Arg Asp Phe Asp Ala Ala Thr 165 170 175 Tyr Leu Ala Leu Ile Asn Ala Val Tyr Phe Lys Gly Asn Trp Lys Ser 180 185 190 Gln Phe Arg Pro Glu Asn Thr Arg Thr Phe Ser Phe Thr Lys Asp Asp 195 200 205 Glu Ser Glu Val Gln Ile Pro Met Met Tyr Gln Gln Gly Glu Phe Tyr 210 215 220 Tyr Gly Glu Phe Ser Asp Gly Ser Asn Glu Ala Gly Gly Ile Tyr Gln 225 235 240 Val Leu Glu Ile Pro Tyr Glu Gly Asp Glu Ile Ser Met Met Leu Val 245 250 255 Leu Ser Arg Gln Glu Val Pro Leu Ala Thr Leu Glu Pro Leu Val Lys 260 265 270

5185.ST25.txt Ala Gln Leu Val Glu Glu Trp Ala Asn Ser Val Lys Lys Gln Lys Val 275 280 285 Glu Val Tyr Leu Pro Arg Phe Thr Val Glu Gln Glu Ile Asp Leu Lys Asp Val Leu Lys Ala Leu Gly Ile Thr Glu Ile Phe Ile Lys Asp Ala 305. Asn Leu Thr Gly Leu Ser Asp Asn Lys Glu Ile Phe Leu Ser Lys Ala 325 330 335 Ile His Lys Ser Phe Leu Glu Val Asn Glu Glu Gly Ser Glu Ala Ala 340 345 350 Ala Val Ser Gly Met Ile Ala Ile Ser Arg Met Ala Val Leu Tyr Pro 355 360 365 Gln Val Ile Val Asp His Pro Phe Phe Leu Ile Arg Asn Arg Arg 370 375 Thr Gly Thr Ile Leu Phe Met Gly Arg Val Met His Pro Glu Thr Met 395 Asn Thr Ser Gly His Asp Phe Glu Glu Leu <210> 29 <211> 280 <212> PRT <213> Homo sapiens <400> 29 Met Leu Ser Ala Val Ala Arg Gly Tyr Gln Gly Trp Phe His Pro Cys
1 10 15 Ala Arg Leu Ser Val Arg Met Ser Ser Thr Gly Ile Asp Arg Lys Gly 20 25 30 Val Leu Ala Asn Arg Val Ala Val Val Thr Gly Ser Thr Ser Gly Ile 35 40 45 Gly Phe Ala Ile Ala Arg Arg Leu Ala Arg Asp Gly Ala His Val Val 50 60 Ile Ser Ser Arg Lys Gln Gln Asn Val Asp Arg Ala Met Ala Lys Leu 65 70 75 80 S185.ST25.txt
Gln Gly Glu Gly Leu Ser Val Ala Gly Ile Val Cys His Val Gly Lys
85 90 95 Ala Glu Asp Arg Glu Gln Leu Val Ala Lys Ala Leu Glu His Cys Gly 100 105 110 Gly Val Asp Phe Leu Val Cys Ser Ala Gly Val Asn Pro Leu Val Gly 115 120 125 Ser Thr Leu Gly Thr Ser Glu Gln Ile Trp Asp Lys Ile Leu Ser Val 130 135 140 Asn Val Lys Ser Pro Ala Leu Leu Leu Ser Gln Leu Leu Pro Tyr Met Glu Asn Arg Arg Gly Ala Val Ile Leu Val Ser Ser Ile Ala Ala Tyr 165 170 175 Asn Pro Val Val Ala Leu Gly Val Tyr Asn Val Ser Lys Thr Ala Leu 180 185 190 Leu Gly Leu Thr Arg Thr Leu Ala Leu Glu Leu Ala Pro Lys Asp Ile 195 200 205 Arg Val Asn Cys Val Val Pro Gly Ile Ile Lys Thr Asp Phe Ser Lys 210 220 Val Phe His Gly Asn Glu Ser Leu Trp Lys Asn Phe Lys Glu His His 225 230 235 240 Gln Leu Gln Arg Ile Gly Glu Ser Glu Asp Cys Ala Gly Ile Val Ser 245 250 255 Phe Leu Cys Ser Pro Asp Ala Ser Tyr Val Asn Gly Glu Asn Ile Ala 260 265 270 Val Ala Gly Tyr Ser Thr Arg Leu 275 280 <210> 30 <211> 193 <212> PRT <213> Homo sapiens <400> Met Gln Ser Leu Met Gln Ala Pro Leu Leu Ile Ala Leu Gly Leu Leu 1 5 10 15 Leu Ala Ala Pro Ala Gln Ala His Leu Lys Lys Pro Ser Gln Leu Ser 20 25 30 Ser Phe Ser Trp Asp Asn Cys Asp Glu Gly Lys Asp Pro Ala Val Ile 35 40 45Arg Ser Leu Thr Leu Glu Pro Asp Pro Ile Ile Val Pro Gly Asn Val 50 60 Thr Leu Ser Val Met Gly Ser Thr Ser Val Pro Leu Ser Ser Pro Leu 65 70 75 80 Lys Val Asp Leu Val Leu Glu Lys Glu Val Ala Gly Leu Trp Ile Lys 85 90 95 Ile Pro Cys Thr Asp Tyr Ile Gly Ser Cys Thr Phe Glu His Phe Cys $100 \hspace{1cm} 105 \hspace{1cm} 110$ Asp Val Leu Asp Met Leu Ile Pro Thr Gly Glu Pro Cys Pro Glu Pro 115 120 125 Leu Arg Thr Tyr Gly Leu Pro Cys His Cys Pro Phe Lys Glu Gly Thr 130 140 Tyr Ser Leu Pro Lys Ser Glu Phe Val Val Pro Asp Leu Glu Leu Pro 145 150 155 160 Ser Trp Leu Thr Thr Gly Asn Tyr Arg Ile Glu Ser Val Leu Ser Ser 165 170 175 Ser Gly Lys Arg Leu Gly Cys Ile Lys Ile Ala Ala Ser Leu Lys Gly 180 185 190 Ile

<210> 31 187 <211> PRT

<213> Homo sapiens

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Leu Gln Met Asp Val Met Pro Gly Glu Gly Asp Leu Pro Gln Met Glu 20 25 30

Val Gly Ser Gly Ser Arg Glu Leu Ser Leu Arg Pro Ser Arg Ser Gly 35 40 45 Ala Gln Gln Leu Glu Glu Glu Gly Pro Met Glu Glu Glu Glu Ala Gln 50 60 Pro Met Ala Ala Pro Glu Gly Lys Arg Ser Leu Ala Asn Gly Pro Asn 65 70 75 80 Ala Gly Glu Gln Pro Gly Gln Val Ala Gly Ala Asp Phe Glu Ser Glu 85 90 95 Asp Glu Glu Glu Phe Asp Asp Trp Glu Asp Asp Tyr Asp Tyr Pro
100 105 110 Glu Glu Gln Leu Ser Gly Ala Gly Tyr Arg Val Ser Ala Ala Leu 115 120 125 Glu Glu Ala Asp Lys Met Phe Leu Arg Thr Arg Glu Pro Ala Leu Asp 130 135 Gly Gly Phe Gln Met His Tyr Glu Lys Thr Pro Phe Asp Gln Leu Ala 145 150 155 160 Phe Ile Glu Glu Leu Phe Ser Leu Met Val Val Asn Arg Leu Thr Glu Glu Leu Gly Cys Asp Glu Ile Ile Asp Arg Glu 185 <210> 32 <211> 2328 <212> PRT Homo sapiens <400> 32 Lys Ser Lys Arg Gln Ala Gln Gln Met Val Gln Pro Gln Ser Pro Val 1 5 10 15 Ala Val Ser Gln Ser Lys Pro Gly Cys Tyr Asp Asn Gly Lys His Tyr
20 25 30 Gln Ile Asn Gln Gln Trp Glu Arg Thr Tyr Leu Gly Asn Val Leu Val 35 40 45 Cys Thr Cys Tyr Gly Gly Ser Arg Gly Phe Asn Cys Glu Ser Lys Pro 50 60

Page 51

Glu Ala Glu Glu Thr Cys Phe Asp Lys Tyr Thr Gly Asn Thr Tyr Arg 70 75 80 Val Gly Asp Thr Tyr Glu Arg Pro Lys Asp Ser Met Ile Trp Asp Cys $85 \hspace{1cm} 90 \hspace{1cm} 95$ Thr Cys Ile Gly Ala Gly Arg Gly Arg Ile Ser Cys Thr Ile Ala Asn $100 \hspace{1cm} 105 \hspace{1cm} 110$ Arg Cys His Glu Gly Gly Gln Ser Tyr Lys Ile Gly Asp Thr Trp Arg 115 120 125 Arg Pro His Glu Thr Gly Gly Tyr Met Leu Glu Cys Val Cys Leu Gly 130 140 Asn Gly Lys Gly Glu Trp Thr Cys Lys Pro Ile Ala Glu Lys Cys Phe 145 150 155 160 Asp His Ala Ala Gly Thr Ser Tyr Val Val Gly Glu Thr Trp Glu Lys
165 170 175 Pro Tyr Gln Gly Trp Met Met Val Asp Cys Thr Cys Leu Gly Glu Gly 180 185 190 Ser Gly Arg Ile Thr Cys Thr Ser Arg Asn Arg Cys Asn Asp Gln Asp 195 200 205 Thr Arg Thr Ser Tyr Arg Ile Gly Asp Thr Trp Ser Lys Lys Asp Asn 210 220 Arg Gly Asn Leu Leu Gln Cys Ile Cys Thr Gly Asn Gly Arg Gly Glu 235 240 Trp Lys Cys Glu Arg His Thr Ser Val Gln Thr Thr Ser Ser Gly Ser 245 250 255 Gly Pro Phe Thr Asp Val Arg Ala Ala Val Tyr Gln Pro Gln Pro His 260 265 270 Pro Gln Pro Pro Pro Tyr Gly His Cys Val Thr Asp Ser Gly Val Val 275 280 285 Tyr Ser Val Gly Met Gln Trp Leu Lys Thr Gln Gly Asn Lys Gln Met 290 295 300 Leu Cys Thr Cys Leu Gly Asn Gly Val Ser Cys Gln Glu Thr Ala Val 305 310 315 320

Thr Gln Thr Tyr Gly Gly Asn Leu Asn Gly Glu Pro Cys Val Leu Pro 325 330 335 Phe Thr Tyr Asn Gly Arg Thr Phe Tyr Ser Cys Thr Thr Glu Gly Arg 340 345 350 Gln Asp Gly His Leu Trp Cys Ser Thr Thr Ser Asn Tyr Glu Gln Asp 355 360 365 Gln Lys Tyr Ser Phe Cys Thr Asp His Thr Val Leu Val Gln Thr Gln 370 380 Gly Gly Asn Ser Asn Gly Ala Leu Cys His Phe Pro Phe Leu Tyr Asn 385 390 395 400 Asn His Asn Tyr Thr Asp Cys Thr Ser Glu Gly Arg Arg Asp Asn Met 405 410 415Lys Trp Cys Gly Thr Thr Gln Asn Tyr Asp Ala Asp Gln Lys Phe Gly 420 430 Phe Cys Pro Met Ala Ala His Glu Glu Ile Cys Thr Thr Asn Glu Gly 435 440 445 Val Met Tyr Arg Ile Gly Asp Gln Trp Asp Lys Gln His Asp Met Gly 450 460 His Met Met Arg Cys Thr Cys Val Gly Asn Gly Arg Gly Glu Trp Thr 465 470 475 480 Cys Ile Ala Tyr Ser Gln Leu Arg Asp Gln Cys Ile Val Asp Asp Ile 485 490 495 Thr Tyr Asn Val Asn Asp Thr Phe His Lys Arg His Glu Glu Gly His 500 510 Met Leu Asn Cys Thr Cys Phe Gly Gln Gly Arg Gly Arg Trp Lys Cys 515 520 525 Asp Pro Val Asp Gln Cys Gln Asp Ser Glu Thr Gly Thr Phe Tyr Gln 530 540 Ile Gly Asp Ser Trp Glu Lys Tyr Val His Gly Val Arg Tyr Gln Cys 545 550 555 Tyr Cys Tyr Gly Arg Gly Ile Gly Glu Trp His Cys Gln Pro Leu Gln 565 570 575 Page 53

Thr Tyr Pro Ser Ser Ser Gly Pro Val Glu Val Phe Ile Thr Glu Thr 580 585 590 Pro Ser Gln Pro Asn Ser His Pro Ile Gln Trp Asn Ala Pro Gln Pro Ser His Ile Ser Lys Tyr Ile Leu Arg Trp Arg Pro Lys Asn Ser Val 610 620 Gly Arg Trp Lys Glu Ala Thr Ile Pro Gly His Leu Asn Ser Tyr Thr 625 630 635 640 Ile Lys Gly Leu Lys Pro Gly Val Val Tyr Glu Gly Gln Leu Ile Ser 645 650 655 Ile Gln Gln Tyr Gly His Gln Glu Val Thr Arg Phe Asp Phe Thr Thr 660 670 Thr Ser Thr Ser Thr Pro Val Thr Ser Asn Thr Val Thr Gly Glu Thr 680 Thr Pro Phe Ser Pro Leu Val Ala Thr Ser Glu Ser Val Thr Glu Ile Thr Ala Ser Ser Phe Val Val Ser Trp Val Ser Ala Ser Asp Thr Val 705 710 715 720 Ser Gly Phe Arg Val Glu Tyr Glu Leu Ser Glu Glu Gly Asp Glu Pro 725 730 735 Gln Tyr Leu Asp Leu Pro Ser Thr Ala Thr Ser Val Asn Ile Pro Asp 740 745 750 Leu Leu Pro Gly Arg Lys Tyr Ile Val Asn Val Tyr Gln Ile Ser Glu 755 760 765 Asp Gly Glu Gln Ser Leu Ile Leu Ser Thr Ser Gln Thr Thr Ala Pro 770 780 Asp Ala Pro Pro Asp Pro Thr Val Asp Gln Val Asp Asp Thr Ser Ile 785 790 795 800 Val Val Arg Trp Ser Arg Pro Gln Ala Pro Ile Thr Gly Tyr Arg Ile 805 810 . 815 Val Tyr Ser Pro Ser Val Glu Gly Ser Ser Thr Glu Leu Asn Leu Pro Page 54

Glu Thr Ala Asn Ser Val Thr Leu Ser Asp Leu Gln Pro Gly Val Gln 835 840 845

Tyr Asn Ile Thr Ile Tyr Ala Val Glu Glu Asn Gln Glu Ser Thr Pro 850 855 860

Val Val Ile Gln Gln Glu Thr Thr Gly Thr Pro Arg Ser Asp Thr Val 865 870 875 880

Pro Ser Pro Arg Asp Leu Gln Phe Val Glu Val Thr Asp Val Lys Val 885 890 895

Thr Ile Met Trp Thr Pro Pro Glu Ser Ala Val Thr Gly Tyr Arg Val 900 905 910

Asp Val Ile Pro Val Asn Leu Pro Gly Glu His Gly Gln Arg Leu Pro 915 920 925

Ile Ser Arg Asn Thr Phe Ala Glu Val Thr Gly Leu Ser Pro Gly Val 930 935 940

Thr Tyr Tyr Phe Lys Val Phe Ala Val Ser His Gly Arg Glu Ser Lys 945 950 960

Pro Leu Thr Ala Gln Gln Thr Thr Lys Leu Asp Ala Pro Thr Asn Leu 965 970 975

Gln Phe Val Asn Glu Thr Asp Ser Thr Val Leu Val Arg Trp Thr Pro 980 985 990

Pro Arg Ala Gln Ile Thr Gly Tyr Arg Leu Thr Val Gly Leu Thr Arg 995 1000 1005

Arg Gly Gln Pro Arg Gln Tyr Asn Val Gly Pro Ser Val Ser Lys 1010 1020

Tyr Pro Leu Arg Asn Leu Gln Pro Ala Ser Glu Tyr Thr Val Ser 1025 1030 1035

Leu Val Ala Ile Lys Gly Asn Gln Glu Ser Pro Lys Ala Thr Gly 1040 1050

Val Phe Thr Thr Leu Gln Pro Gly Ser Ser Ile Pro Pro Tyr Asn 1055 1060 1065

Thr	Glu 1070	٧a٦	Thr	Glu	Thr	Thr 1075	Ile	51 Val	85.s Ile	T25. Thr	txt Trp 1080	Thr	Pro	Ala
Pro	Arg 1085	Ile	Gly	Phe	Lys	Leu 1090	Gly	∨al	Arg	Pro	Ser 1095	Gln	Gly	Gly
Glu	Ala 1100	Pro	Arg	Glu	val	Thr 1105	Ser	Asp	Ser	Gly	Ser 1110	Ile	val	٧al
Ser	Gly 1115	Leu	Thr	Pro	Gly	val 1120	Glu	Tyr	۷al	Tyr	Thr 1125	Ile	Gln	۷al
Leu	Arg 1130	Asp	Gly	Gln	Glu	Arg 1135	Asp	Ala	Pro	Ile	Val 1140	Asn	Lys	∨al
۷al	Thr 1145	Pro	Leu	Ser	Pro	Pro 1150	Thr	Asn	Leu	His	Leu 1155	Glu	Ala	Asn
Pro	Asp 1160	Thr	Gly	val	Leu	Thr 1165	٧al	Ser	Тгр	Glu	Arg 1170	Ser	Thr	Thr
Pro	Asp 1175	Ile	Thr	Gly	Tyr	Arg 1180	Ile	Thr	Thr	Thr	Pro 1185	Thr	Asn	Gly
Gln	Gln 1190	Gly	Asn	Ser	Leu	Glu 1195	Glu	Val	Val	His	Ala 1200	Asp	Gln	Ser
Ser	Cys 1205	Thr	Phe	Asp	Asn	Leu 1210	Ser	Pro	Gly	Leu	Glu 1215	Tyr	Asn	Val
Ser	val 1220	туг	Thr	val	Lys	Asp 1225	Asp	Lys	Glu	Ser	Val 1230	Pro	Ile	Ser
Asp	Thr 1235	Ile	Ile	Pro	Ala	Val 1240	Pro	Pro	Pro	Thr	Asp 1245	Leu	Arg	Phe
Thr	Asn 1250	Ile	Gly	Pro	Asp	Thr 1255	Met	Arg	٧al	Thr	Trp 1260	Ala	Pro	Pro
Pro	Ser 1265	Ile	Asp	Leu	Thr	Asn 1270	Phe	Leu	٧al	Arg	Tyr 1275	Ser	Pro	۷al
Lys	Asn 1280	Glu	Glu	Asp	٧a٦	Ala 1285	Glu	Leu	Ser	Ile	ser 1290	Pro	Ser	Asp
Asn	Ala 1295	val	∨al	Leu	Thr	Asn 1300	Leu	Leu	Pro	Gly	Thr 1305	Glu	Tyr	۷al
									Dag	a 56				

Val	Ser 1310	٧a٦	Ser	Ser	٧a٦	Tyr 1315	Glu	Gln	нis	Glu	Ser 1320	Thr	Pro	Leu
Arg	Gly 1325	Arg	Gln	Lys	Thr	Gly 1330	Leu	Asp	Ser	Pro	Thr 1335	Gly	Ile	Asp
Phe	Ser 1340	Asp	Ile	Thr	Ala	Asn 1345	Ser	Phe	Thr	val	ніs 1350	Trp	Ile	Ala
Pro	Arg 1355	Ala	Thr	Ile	Thr	Gly 1360	Tyr	Arg	Ile	Arg	ніs 1365	His	Pro	Glu
His	Phe 1370	Ser	Gly	Arg	Pro	Arg 1375	Glu	Asp	Arg	∨al	Pro 1380	His	Ser	Arg
Asn	Ser 1385	Ile	Thr	Leu	Thr	Asn 1390	Leu	Thr	Pro	Gly	Thr 1395	Glu	Tyr	٧a٦
val	Ser 1400	Ile	val	Ala	Leu	Asn 1405	Gly	Arg	Glu	Glu	Ser 1410	Pro	Leu	Leu
Ile	Gly 1415	Gln	Gln	Ser	Thr	Val 1420	Ser	Asp	٧a٦	Pro	Arg 1425	Asp	Leu	Glu
Val	Val 1430	Ala	Ala	Thr	Pro	Thr 1435	Ser	Leu	Leu	Ile	Ser 1440	Trp	Asp	Ala
Pro	Ala 1445	٧al	Thr	٧a٦	Arg	Tyr 1450	Tyr	Arg	Ile	Thr	Tyr 1455	Gly	Glu	Thr
Gly	Gly 1460	Asn	Ser	Pro	∨al	Gln 1465	Glu	Phe	Thr	٧al	Pro 1470	Gly	Ser	Lys
Ser	Thr 1475	Ala	Thr	Ile	Ser	Gly 1480	Leu	Lys	Pro	Gly	Val 1485	Asp	Tyr	Thr
Ile	Thr 1490	٧a٦	Tyr	Ala	val	Thr 1495	Gly	Arg	Gly	Asp	Ser 1500	Pro	Ala	Ser
Ser	Lys 1505	Pro	Ile	Ser	Ile	Asn 1510	Tyr	Arg	Thr	Glu	Ile 1515	Asp	Lys	Pro
Ser	Gln 1520	Met	Gln	val	Thr	Asp 1525	٧al	Gln	Asp	Asn	Ser 1530	Ile	Ser	val
Lys	Trp 1535	Leu	Pro	Ser	Ser	Ser 1540	Pro	٧a٦		Gly e 57	1545	Arg	val	⊤hr

Thr Thr Pro Lys Asn Gly Pro Gly Pro Thr Lys Thr Lys Thr Ala 1550 Gly Pro Asp Gln Thr Glu Met Thr Ile Glu Gly Leu Gln Pro Thr 1565 1570 1575 Val Glu Tyr Val Val Ser Val Tyr Ala Gln Asn Pro Ser Gly Glu 1580 1590 Ser Gln Pro Leu Val Gln Thr Ala Val Thr Asn Ile Asp Arg Pro 1600 Lys Gly Leu Ala Phe Thr Asp Val Asp Val Asp Ser Ile Lys Ile 1610 16201620 Ala Trp Glu Ser Pro Gln Gly Gln Val Ser Arg Tyr Arg Val Thr 1625 1630 1635 Tyr Ser Ser Pro Glu Asp Gly Ile His Glu Leu Phe Pro Ala Pro 1640 1650 Asp Gly_Glu Glu Asp Thr Ala_Glu Leu Gln Gly Leu_Arg Pro Gly Ser Glu Tyr Thr Val Ser Val Val Ala Leu His Asp Asp Met Glu Ser Gln Pro Leu Ile Gly Thr Gln Ser Thr Ala Ile Pro Ala Pro 1685 Thr Asp Leu Lys Phe Thr Gln Val Thr Pro Thr Ser Leu Ser Ala 1700 1705 1710 Gln Trp Thr Pro Pro Asn Val Gln Leu Thr Gly Tyr Arg Val Arg 1715 1720 1725 Val Thr Pro Lys Glu Lys Thr Gly Pro Met Lys Glu Ile Asn Leu 1730 1740 Ala Pro Asp Ser Ser Ser Val Val Ser Gly Leu Met Val Ala 1745 1750 1755 Thr Lys Tyr Glu Val Ser Val Tyr Ala Leu Lys Asp Thr Leu Thr 1760 1770 Ser Arg Pro Ala Gln Gly Val Val Thr Thr Leu Glu Asn Val Ser Page 58

1780

Pro Pro Arg Arg Ala Arg Val Thr Asp Ala Thr Glu Thr Thr Ile 1790 1800

Thr Ile Ser Trp Arg Thr Lys Thr Glu Thr Ile Thr Gly Phe Gln 1805 1810

Val Asp Ala Val Pro Ala Asn Gly Gln Thr Pro Ile Gln Arg Thr 1820 1830

Ile Lys Pro Asp Val Arg Ser Tyr Thr Ile Thr Gly Leu Gln Pro 1835 1840 1845

Gly Thr Asp Tyr Lys Ile Tyr Leu Tyr Thr Leu Asn Asp Asn Ala 1850 1860

Arg Ser Ser Pro Val Val Ile Asp Ala Ser Thr Ala Ile Asp Ala 1865 1870 1875

Pro Ser Asn Leu Arg Phe Leu Ala Thr Thr Pro Asn Ser Leu Leu 1880 1890

Val Ser Trp Gln Pro Pro Arg Ala Arg Ile Thr Gly Tyr Ile Ile 1895 1900 1905

Lys Tyr Glu Lys Pro Gly Ser Pro Pro Arg Glu Val Val Pro Arg 1910 1915 1920

Pro Arg Pro Gly Val Thr Glu Ala Thr Ile Thr Gly Leu Glu Pro 1925 1930 1935

Gly Thr Glu Tyr Thr Ile Tyr Val Ile Ala Leu Lys Asn Asn Gln 1940 1945 1950

Lys Ser Glu Pro Leu Ile Gly Arg Lys Lys Thr Asp Glu Leu Pro 1955 1960 1965

Gln Leu Val Thr Leu Pro His Pro Asn Leu His Gly Pro Glu Ile 1970 1975 1980

Leu Asp Val Pro Ser Thr Val Gln Lys Thr Pro Phe Val Thr His 1985 1990 1995

Pro Gly Tyr Asp Thr Gly Asn Gly Ile Gln Leu Pro Gly Thr Ser 2000 2010

5185.ST25.txt Gly Gln Gln Pro Ser Val Gly Gln Gln Met Ile Phe Glu Glu His Gly Phe Arg Arg Thr Thr Pro Pro Thr Thr Ala Thr Pro Ile Arg His Arg Pro Arg Pro Tyr Pro Pro Asn Val Gly Gln Glu Ala Leu 2045 2050 2055 2050 Ser Gln Thr Thr Ile Ser Trp Ala Pro Phe Gln Asp Thr Ser Glu Tyr Ile Ile Ser Cys His Pro Val Gly Thr Asp Glu Glu Pro Leu 2075 2080 2085 2080 Gln Phe Arg Val Pro Gly Thr Ser Thr Ser Ala Thr Leu Thr Gly Leu Thr Arg Gly Ala Thr Tyr Asn Ile Ile Val Glu Ala Leu Lys 2105 2115 . Asp Gln Gln Arg His Lys Val Arg Glu Glu Val Val Thr Val Gly Asn Ser_ Val Asn Glu Gly Leu Asn Gln Pro Thr Asp Asp Ser Cys Phe Asp Pro Tyr Thr Val Ser His Tyr Ala Val Gly Asp Glu Trp 2150 2155 Glu Arg Met Ser Glu Ser Gly Phe Lys Leu Leu Cys Gln Cys Leu 2165 2170 2175 Gly Phe Gly Ser Gly His Phe Arg Cys Asp Ser Ser Arg Trp Cys 2180 His Asp Asn Gly Val Asn Tyr Lys Ile Gly Glu Lys Trp Asp Arg 2195 2200 2205 Gln Gly Glu Asn Gly Gln Met Met Ser Cys Thr Cys Leu Gly Asn 2210 2220 Gly Lys Gly Glu Phe Lys Cys Asp Pro His Glu Ala Thr Cys Tyr 2225 2230 2235 Asp Asp Gly Lys Thr Tyr His Val Gly Glu Gln Trp Gln Lys Glu 2240 2250

Tyr Leu Gly Ala Ile Cys Ser Cys Thr Cys Phe Gly Gln Arg 2255 2260 2265

Gly Trp Arg Cys Asp Asn Cys Arg Arg Pro Gly Gly Glu Pro Ser 2270 2275 2280

Pro Glu Gly Thr Thr Gly Gln Ser Tyr Asn Gln Tyr Ser Gln Arg 2285 2290 2295

Tyr His Gln Arg Thr Asn Thr Asn Val Asn Cys Pro Ile Glu Cys 2300 2310

Phe Met Pro Leu Asp Val Gln Ala Asp Arg Glu Asp Ser Arg Glu 2315 2320 2325

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<211> 280

<212> PRT

<213> Homo sapiens

<400> 33

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Val Leu Ala Asn Arg Val Ala Val Val Thr Gly Ser Thr Ser Gly Ile 35 40 45

Gly Phe Ala Ile Ala Arg Arg Leu Ala Arg Asp Gly Ala His Val Val 50 55 60

Ile Ser Ser Arg Lys Gln Gln Asn Val Asp Arg Ala Met Ala Lys Leu 65 70 75 80

Gln Gly Glu Gly Leu Ser Val Ala Gly Ile Val Cys His Val Gly Lys
85 90 95

Ala Glu Asp Arg Glu Gln Leu Val Ala Lys Ala Leu Glu His Cys Gly 100 105 110

Gly Val Asp Phe Leu Val Cys Ser Ala Gly Val Asn Pro Leu Val Gly 115 120 125

Ser Thr Leu Gly Thr Ser Glu Gln Ile Trp Asp Lys Ile Leu Ser Val 130 135 140

Asn Val Lys Ser Pro Ala Leu Leu Leu Ser Gln Leu Leu Pro Tyr Met 145 150 155 160

Glu Asn Arg Arg Gly Ala Val Ile Leu Val Ser Ser Ile Ala Ala Tyr 165 170 175

Asn Pro Val Val Ala Leu Gly Val Tyr Asn Val Ser Lys Thr Ala Leu 180 185 190

Leu Gly Leu Thr Arg Thr Leu Ala Leu Glu Leu Ala Pro Lys Asp Ile 195 200 205

Arg Val Asn Cys Val Val Pro Gly Ile Ile Lys Thr Asp Phe Ser Lys 210 220

Val Phe His Gly Asn Glu Ser Leu Trp Lys Asn Phe Lys Glu His His 225 230 235 240

Gln Leu Gln Arg Ile Gly Glu Ser Glu Asp Cys Ala Gly Ile Val Ser 245 250 255

Phe Leu Cys Ser Pro Asp Ala Ser Tyr Val Asn Gly Glu Asn Ile Ala 260 265 270

Val Ala Gly Tyr Ser Thr Arg Leu 275 280

<210> 34

<211> 433

<212> PRT

<213> Homo sapiens

<400> 34

Met Ala Leu Arg Val Thr Arg Asn Ser Lys Ile Asn Ala Glu Asn Lys 1 10 15

Ala Lys Ile Asn Met Ala Gly Ala Lys Arg Val Pro Thr Ala Pro Ala 20 25 30

Ala Thr Ser Lys Pro Gly Leu Arg Pro Arg Thr Ala Leu Gly Asp Ile 35 40 45

Gly Asn Lys Val Ser Glu Gln Leu Gln Ala Lys Met Pro Met Lys Lys 50 60

Glu Ala Lys Pro Ser Ala Thr Gly Lys Val Ile Asp Lys Lys Leu Pro 65 70 75 80

Lys Pro Leu Glu Lys Val Pro Met Leu Val Pro Val Pro Val Ser Glu 85 90 95 Pro Val Pro Glu Pro Glu Pro Glu Pro Glu Pro Val Lys Glu Glu Lys Leu Ser Pro Glu Pro Ile Leu Val Asp Thr Ala Ser Pro Ser 115 120 125 Pro Met Glu Thr Ser Gly Cys Ala Pro Ala Glu Glu Asp Leu Cys Gln 130 140 Ala Phe Ser Asp Val Ile Leu Ala Val Asn Asp Val Asp Ala Glu Asp 145 150 155 160 Gly Ala Asp Pro Asn Leu Cys Ser Glu Tyr Val Lys Asp Ile Tyr Ala 165 170 175 Tyr Leu Arg Gln Leu Glu Glu Gln Ala Val Arg Pro Lys Tyr Leu 180 185 190 Leu Gly Arg Glu Val Thr Gly Asn Met Arg Ala Ile Leu Ile Asp Trp 195 200 205 Leu Val Gln Val Gln Met Lys Phe Arg Leu Leu Gln Glu Thr Met Tyr 210 220 Met Thr Val Ser Ile Ile Asp Arg Phe Met Gln Asn Asn Cys Val Pro 225 230 235 240 Lys Lys Met Leu Gln Leu Val Gly Val Thr Ala Met Phe Ile Ala Ser 245 250 255 Lys Tyr Glu Glu Met Tyr Pro Pro Glu Ile Gly Asp Phe Ala Phe Val 260 265 270 Thr Asp Asn Thr Tyr Thr Lys His Gln Ile Arg Gln Met Glu Met Lys 275 280 285 Ile Leu Arg Ala Leu Asn Phe Gly Leu Gly Arg Pro Leu Pro Leu His 290 295 300 Phe Leu Arg Arg Ala Ser Lys Ile Gly Glu Val Asp Val Glu Gln His 305 310 315 320 Thr Leu Ala Lys Tyr Leu Met Glu Leu Thr Met Leu Asp Tyr Asp Met 325 330 335Page 63

Val His Phe Pro Pro Ser Gln Ile Ala Ala Gly Ala Phe Cys Leu Ala 340 350

Leu Lys Ile Leu Asp Asn Gly Glu Trp Thr Pro Thr Leu Gln His Tyr 355 360 365

Leu Ser Tyr Thr Glu Glu Ser Leu Leu Pro Val Met Gln His Leu Ala 370 380

Lys Asn Val Val Met Val Asn Gln Gly Leu Thr Lys His Met Thr Val 385 390 395 400

Lys Asn Lys Tyr Ala Thr Ser Lys His Ala Lys Ile Ser Thr Leu Pro 405 410 415

Gln Leu Asn Ser Ala Leu Val Gln Asp Leu Ala Lys Ala Val Ala Lys 420 425 430

٧a٦

<210> 35

<211> 1078

<212> PRT

<213> Homo sapiens

<400> 35

Met Ala Pro Arg Lys Arg Gly Gly Arg Gly Ile Ser Phe Ile Phe Cys 1 10 15

Cys Phe Arg Asn Asn Asp His Pro Glu Ile Thr Tyr Arg Leu Arg Asn 20 25 30

Asp Ser Asn Phe Ala Leu Gln Thr Met Glu Pro Ala Leu Pro Met Pro 45

Pro Val Glu Glu Leu Asp Val Met Phe Ser Glu Leu Val Asp Glu Leu 50 60

Asp Leu Thr Asp Lys His Arg Glu Ala Met Phe Ala Leu Pro Ala Glu 65 70 75 80

Lys Lys Trp Gln Ile Tyr Cys Ser Lys Lys Lys Asp Gln Glu Glu Asn $85 \hspace{1.5cm} 90 \hspace{1.5cm} 95$

Lys Gly Ala Thr Ser Trp Pro Glu Phe Tyr Ile Asp Gln Leu Asn Ser 100 105 110 Page 64

Met Ala Ala Arg Lys Ser Leu Leu Ala Leu Glu Lys Glu Glu Glu Glu 115 120 125 Glu Arg Ser Lys Thr Ile Glu Ser Leu Lys Thr Ala Leu Arg Thr Lys 130 135 140 Pro Met Arg Phe Val Thr Arg Phe Ile Asp Leu Asp Gly Leu Ser Cys 145 150 155 160 Ile Leu Asn Phe Leu Lys Thr Met Asp Tyr Glu Thr Ser Glu Ser Arg 165 170 175 Ile His Thr Ser Leu Ile Gly Cys Ile Lys Ala Leu Met Asn Asn Ser 180 185 190 Gln Gly Arg Ala His Val Leu Ala His Ser Glu Ser Ile Asn Val Ile 195 200 205 Ala Gln Ser Leu Ser Thr Glu Asn Ile Lys Thr Lys Val Ala Val Leu 210 215 220 Glu Ile Leu Gly Ala Val Cys Leu Val Pro Gly Gly His Lys Lys Val 225 230 235 240 Leu Gln Ala Met Leu His Tyr Gln Lys Tyr Ala Ser Glu Arg Thr Arg 245 250 255 Phe Gln Thr Leu Ile Asn Asp Leu Asp Lys Ser Thr Gly Arg Tyr Arg 260 265 270 Asp Glu Val Ser Leu Lys Thr Ala Ile Met Ser Phe Ile Asn Ala Val 275 280 285 Leu Ser Gln Gly Ala Gly Val Glu Ser Leu Asp Phe Arg Leu His Leu 290 295 300 Arg Tyr Glu Phe Leu Met Leu Gly Ile Gln Pro Val Ile Asp Lys Leu 305 310 315 320 Arg Glu His Glu Asn Ser Thr Leu Asp Arg His Leu Asp Phe Phe Glu 325 330 335 Met Leu Arg Asn Glu Asp Glu Leu Glu Phe Ala Lys Arg Phe Glu Leu 340 345 350 Val His Ile Asp Thr Lys Ser Ala Thr Gln Met Phe Glu Leu Thr Arg Page 65

360

Lys Arg Leu Thr His Ser Glu Ala Tyr Pro His Phe Met Ser Ile Leu $370 \hspace{1cm} 375 \hspace{1cm} 380$ His His Cys Leu Gln Met Pro Tyr Lys Arg Ser Gly Asn Thr Val Gln 385 390 395 Tyr Trp Leu Leu Leu Asp Arg Ile Ile Gln Gln Ile Val Ile Gln Asn Asp Lys Gly Gln Asp Pro Asp Ser Thr Pro Leu Glu Asn Phe Asn Ile Lys Asn Val Val Arg Met Leu Val Asn Glu Asn Glu Val Lys Gln Trp Lys Glu Gln Ala Glu Lys Met Arg Lys Glu His Asn Glu Leu Gln Gln 450 460 Lys Leu Glu Lys Lys Glu Arg Glu Cys Asp Ala Lys Thr Gln Glu Lys 465 470 475 480 Glu Glu Met Met Gln Thr Leu Asn Lys Met Lys Glu Lys Leu Glu Lys Glu Thr Thr Glu His Lys Gln Val Lys Gln Gln Val Ala Asp Leu Thr 500 510 Ala Gln Leu His Glu Leu Ser Arg Arg Ala Val Cys Ala Ser Ile Pro 515 520 525 Gly Gly Pro Ser Pro Gly Ala Pro Gly Gly Pro Phe Pro Ser Ser Val 530 540 Pro Gly Ser Leu Leu Pro Pro Pro Pro Pro Pro Leu Pro Gly Gly 545 Met Leu Pro Pro Pro Pro Pro Pro Pro Pro Gly Gly Pro Pro Pro 565 570 575 Pro Pro Gly Pro Pro Pro Leu Gly Ala Ile Met Pro Pro Pro Gly Ala 580 585 590 Pro Met Gly Leu Ala Leu Lys Lys Lys Ser Ile Pro Gln Pro Thr Asn 595 600 605

5185.ST25.txt Ala Leu Lys Ser Phe Asn Trp Ser Lys Leu Pro Glu Asn Lys Leu Glu 610 620 Gly Thr Val Trp Thr Glu Ile Asp Asp Thr Lys Val Phe Lys Ile Leu 625 630 635 Asp Leu Glu Asp Leu Glu Arg Thr Phe Ser Ala Tyr Gln Arg Gln Gln 645 650 655 Asp Phe Phe Val Asn Ser Asn Ser Lys Gln Lys Glu Ala Asp Ala Ile 660 665 670 Asp Asp Thr Leu Ser Ser Lys Leu Lys Val Lys Glu Leu Ser Val Ile 675 680 685 Asp Gly Arg Arg Ala Gln Asn Cys Asn Ile Leu Leu Ser Arg Leu Lys 690 700 Leu Ser Asn Asp Glu Ile Lys Arg Ala Ile Leu Thr Met Asp Glu Gln 705 710 715 720 Glu Asp Leu Pro Lys Asp Met Leu Glu Gln Leu Leu Lys Phe Val Pro 725 730 735 Glu Lys Ser Asp Ile Asp Leu Leu Glu Glu His Lys His Glu Leu Asp 740 745 750 Arg Met Ala Lys Ala Asp Arg Phe Leu Phe Glu Met Ser Arg Ile Asn 755 760 765 His Tyr Gln Gln Arg Leu Gln Ser Leu Tyr Phe Lys Lys Lys Phe Ala 770 775 780 Glu Arg Val Ala Glu Val Lys Pro Lys Val Glu Ala Ile Arg Ser Gly 785 790 795 800 Ser Glu Glu Val Phe Arg Ser Gly Ala Leu Lys Gln Leu Leu Glu Val 805 810 815 Val Leu Ala Phe Gly Asn Tyr Met Asn Lys Gly Gln Arg Gly Asn Ala 820 825 830 Tyr Gly Phe Lys Ile Ser Ser Leu Asn Lys Ile Ala Asp Thr Lys Ser 835 840 845 Ser Ile Asp Lys Asn Ile Thr Leu Leu His Tyr Leu Ile Thr Ile Val 855 860

Glu Asn Lys Tyr Pro Ser Val Leu Asn Leu Asn Glu Glu Leu Arg Asp 865 870 875 880

Ile Pro Gln Ala Ala Lys Val Asn Met Thr Glu Leu Asp Lys Glu Ile 885 890 895

Ser Thr Leu Arg Ser Gly Leu Lys Ala Val Glu Thr Glu Leu Glu Tyr 900 910

Gln Lys Ser Gln Pro Pro Gln Pro Gly Asp Lys Phe Val Ser Val Val 915 920 925

Ser Gln Phe Ile Thr Val Ala Ser Phe Ser Phe Ser Asp Val Glu Asp 930 940

Leu Leu Ala Glu Ala Lys Asp Leu Phe Thr Lys Ala Val Lys His Phe 945 950 955 960

Gly Glu Glu Ala Gly Lys Ile Gln Pro Asp Glu Phe Phe Gly Ile Phe 965 970 975

Asp Gln Phe Leu Gln Ala Val Ser Glu Ala Lys Gln Glu Asn Glu Asn 980 985 990

Met Arg Lys Lys Glu Glu Glu Glu Arg Arg Ala Arg Met Glu Ala 995 1000 1005

Gln Leu Lys Glu Gln Arg Glu Arg Glu Arg Lys Met Arg Lys Ala 1010 1015 1020

Lys Glu Asn Ser Glu Glu Ser Gly Glu Phe Asp Asp Leu Val Ser 1025 1030 1035

Ala Leu Arg Ser Gly Glu Val Phe Asp Lys Asp Leu Ser Lys Leu 1040 1050

Lys Arg Asn Arg Lys Arg Ile Thr Asn Gln Met Thr Asp Ser Ser 1055 1060 1065

Arg Glu Arg Pro Ile Thr Lys Leu Asn Phe 1070 1075

<210> 36

<211> 179

<212> PRT

<213> Homo sapiens

<400> 36

Met Val Leu Ala Trp Tyr Met Asp Asp Ala Pro Gly Asp Pro Arg Gln 10 15

Pro His Arg Pro Asp Pro Gly Arg Pro Val Gly Leu Glu Gln Leu Arg 20 25 30

Arg Leu Gly Val Leu Tyr Trp Lys Leu Asp Ala Asp Lys Tyr Glu Asn 35 40 45

Asp Pro Glu Leu Glu Lys Ile Arg Arg Glu Arg Asn Tyr Ser Trp Met 50 60

Asp Ile Ile Thr Ile Cys Lys Asp Lys Leu Pro Asn Tyr Glu Glu Lys 65 70 75 80

Ile Lys Met Phe Tyr Glu Glu His Leu His Leu Asp Asp Glu Ile Arg 85 90 95

Tyr Ile Leu Asp Gly Ser Gly Tyr Phe Asp Val Arg Asp Lys Glu Asp 100 105 110

Gln Trp Ile Arg Ile Phe Met Glu Lys Gly Asp Met Val Thr Leu Pro 115 120 125

Ala Gly Ile Tyr His Arg Phe Thr Val Asp Glu Lys Asn Tyr Thr Lys 130 140

Ala Met Arg Leu Phe Val Gly Glu Pro Val Trp Thr Ala Tyr Asn Arg 145 150 155 160

Pro Ala Asp His Phe Glu Ala Arg Gly Gln Tyr Val Lys Phe Leu Ala 165 170 175

Gln Thr Ala

<210> 37

<211> 142

<212> PRT

<213> Homo sapiens

<400> 37

Met Gly Ala Pro Thr Leu Pro Pro Ala Trp Gln Pro Phe Leu Lys Asp $10 \hspace{1cm} 15$

His Arg Ile Ser Thr Phe Lys Asn Trp Pro Phe Leu Glu Gly Cys Ala 20 25 30

Cys Thr Pro Glu Arg Met Ala Glu Ala Gly Phe Ile His Cys Pro Thr 35 40 45

Glu Asn Glu Pro Asp Leu Ala Gln Cys Phe Phe Cys Phe Lys Glu Leu 50 60

Glu Gly Trp Glu Pro Asp Asp Pro Ile Glu Glu His Lys Lys His 65 70 75 80

Ser Ser Gly Cys Ala Phe Leu Ser Val Lys Lys Gln Phe Glu Glu Leu 85 90 95

Thr Leu Gly Glu Phe Leu Lys Leu Asp Arg Glu Arg Ala Lys Asn Lys 100 105 110

Ile Ala Lys Glu Thr Asn Asn Lys Lys Glu Phe Glu Glu Thr Ala 115 120 125

Lys Lys Val Arg Arg Ala Ile Glu Gln Leu Ala Ala Met Asp 130 140